

FIG. 2

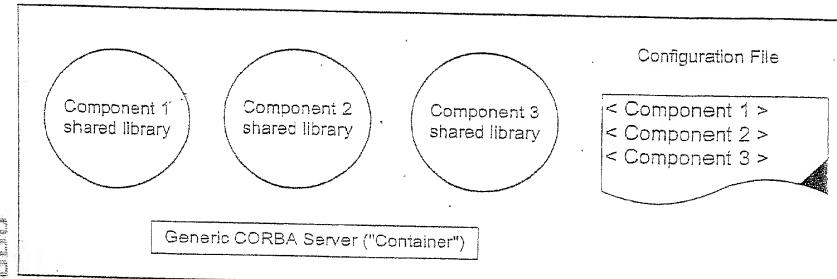
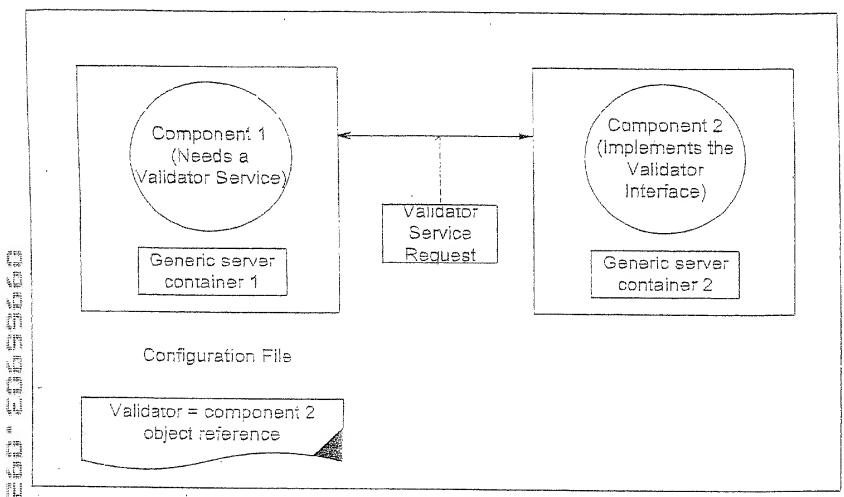


FIG. 3



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```
<Server Name="Bk/CityCodeLookupSvr">
                                                   FIGURE 4A
 <a href="#">Attributes></a>
   <Simple Name="Timeout">0</Simple>
   <Simple Name="ThreadPolicy">thread-pool</Simple>
   <Simple Name="MaxThreads">20</Simple>
   <Simple Name="Description">This server contains components related to Car related Code
Lookups.</Simple>
   <Simple
Name="IncludeFile">/net/godzilla/usr2/BookSmart/v2.0/run/CORBA/TraderInclude.xml</Simp
 </Attributes>
      <InternalComponents>
  <Component Name="CityCodeLookup">
   <Creator Name="ConverterCreator"</pre>
     Library="libSnSFrameworkConverterCreators.so"/>
   <Relationships>
   </Relationships>
                   <Attributes>
                         <Simple Name="ServiceType">CityCodeLookup</Simple>
                         <Simple Name="SubstringMatch">True</Simple>
                         <Simple Name="TagName">City</Simple>
                         <Simple Name="CodeAttribute">Code</Simple>
                         <Simple Name="NameAttribute">Value</Simple>
                         <Simple Name="Library">libora12d0146.so</Simple>
                         <Simple Name="Database">WG80</Simple>
                         <Simple Name="UserName">BROADVISION</Simple>
                         <Simple Name="Password">BROADVISION</Simple>
                         <Simple Name="Table">BK_CITY_MAST</Simple>
                         <Simple Name="CodeColumn">CITY_CODE</Simple>
                         <Simple Name="NameColumn">CITY_NAME
                         <Simple
Name="CodeIsPrimaryColumn">ISPRIMARY_FLAG</Simple>
                         <Sequence Name="Attributes" Type="Simple">
                               <Simple
Name="AttributeColumn">COUNTRY_CODE</Simple>
                               <Simple
Name="AttributeColumn">CURRENCY_CODE</Simple>
                               <Simple
                         </Sequence>
                   </Attributes>
            </Component>
```

FIGURE 4B

```
<Component Name="CityCodeStrictLookup">
  <Creator Name="ConverterCreator"</pre>
    Library="libSnSFrameworkConverterCreators.so"/>
  <Relationships>
  </Relationships>
                  <Atuributes>
                        <Simple Name="ServiceType">CityCodeStrictLookup</Simple>
     <Simple Name="VerboseErrors">True</Simple>
                        <Simple Name="SubstringMatch">True</Simple>
                        <Simple Name="TagName">City</Simple>
                        <Simple Name="CodeAttribute">Code</Simple>
                        <Simple Name="NameAttribute">Value</Simple>
                        <Simple Name="Library">libora12d0146.so</Simple>
                        <Simple Name="Database">WG80</Simple>
                        <Simple Name="UserName">BROADVISION</Simple>
                        <Simple Name="Password">BROADVISION</Simple>
                        <Simple Name="Table">BK_CITY_MAST</Simple>
                        <Simple Name="CodeColumn">CITY_CODE</Simple>
                        <Simple Name="NameColumn">CITY_NAME</Simple>
                        <Simple
Name="CodelsPrimaryColumn">ISPRIMARY_FLAG</Simple>
                        <Sequence Name="Attributes" Type="Simple">
                               <Simple
Nams="AttributeColumn">COUNTRY_CODE</Simple>
                              <Simple
Name="AttributeColumn">CURRENCY_CODE</Simple>
                              <Simple
Name="AttributeColumn">ISVALIDHOTELRENTAL_FLAG</Simple>
                              <Simple Name="ArtributeColumn">DAL</Simple>
                              <Simple
Name="AttributeColumn">ISETCARRIERCHECK</Simple>
                        </Sequence>
                  </Attributes>
            </Component>
 </InternalComponents>
</Server>
```

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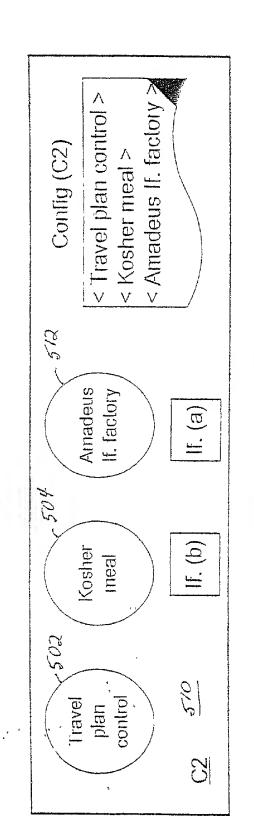
Config (C1)

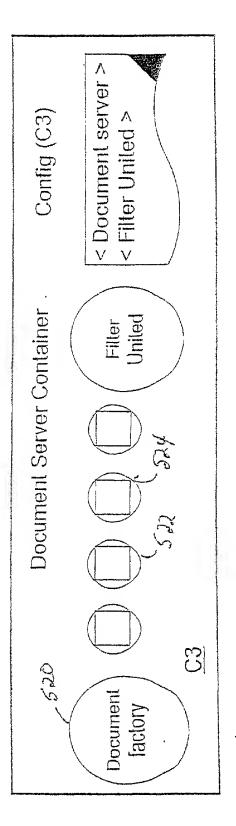
Shared Library Components

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FIG. 5C





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FIG. 6

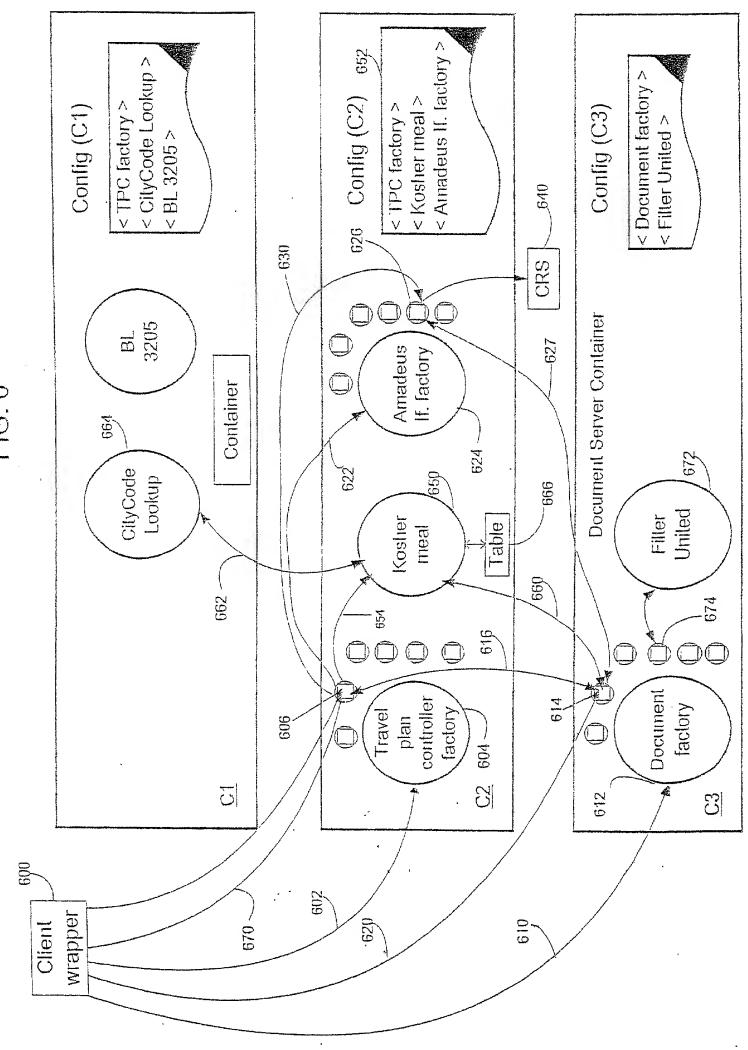


Fig. 7

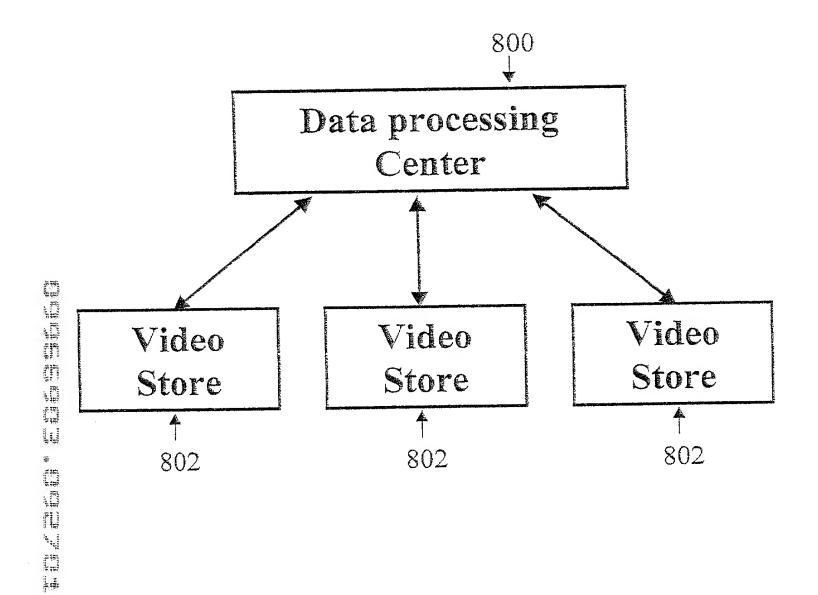


Fig. 8

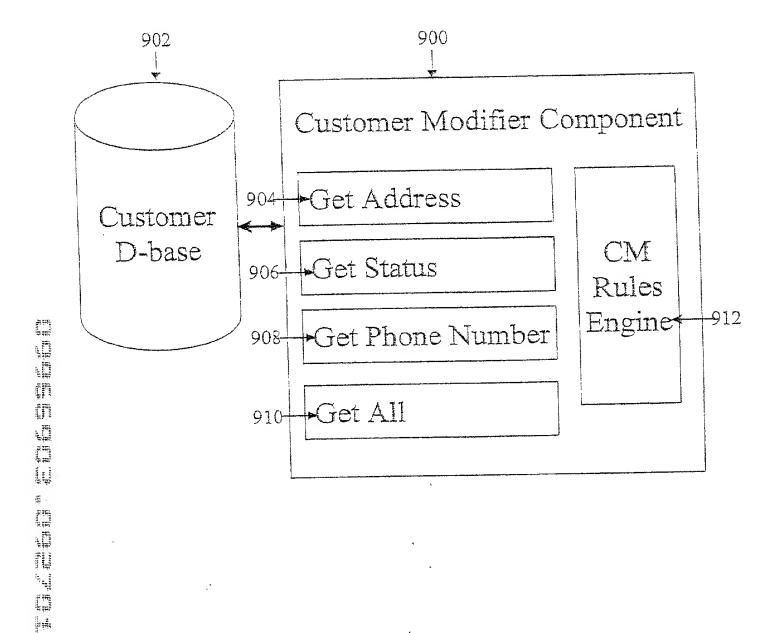


Fig. 9

Videostore Local Machine

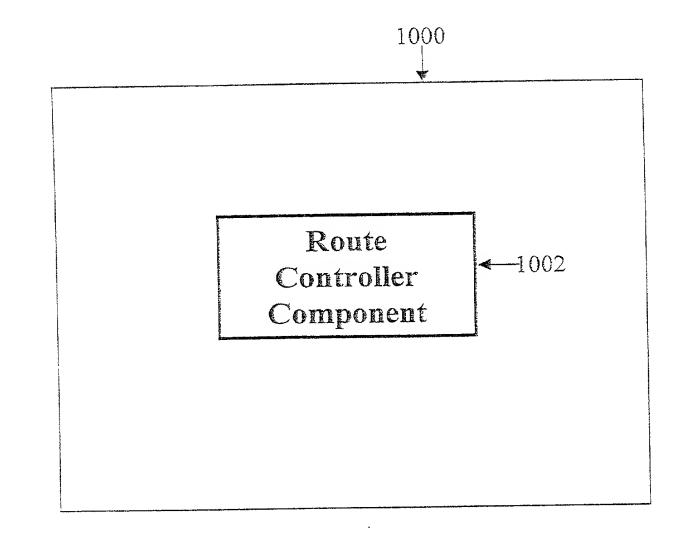


Fig. 10

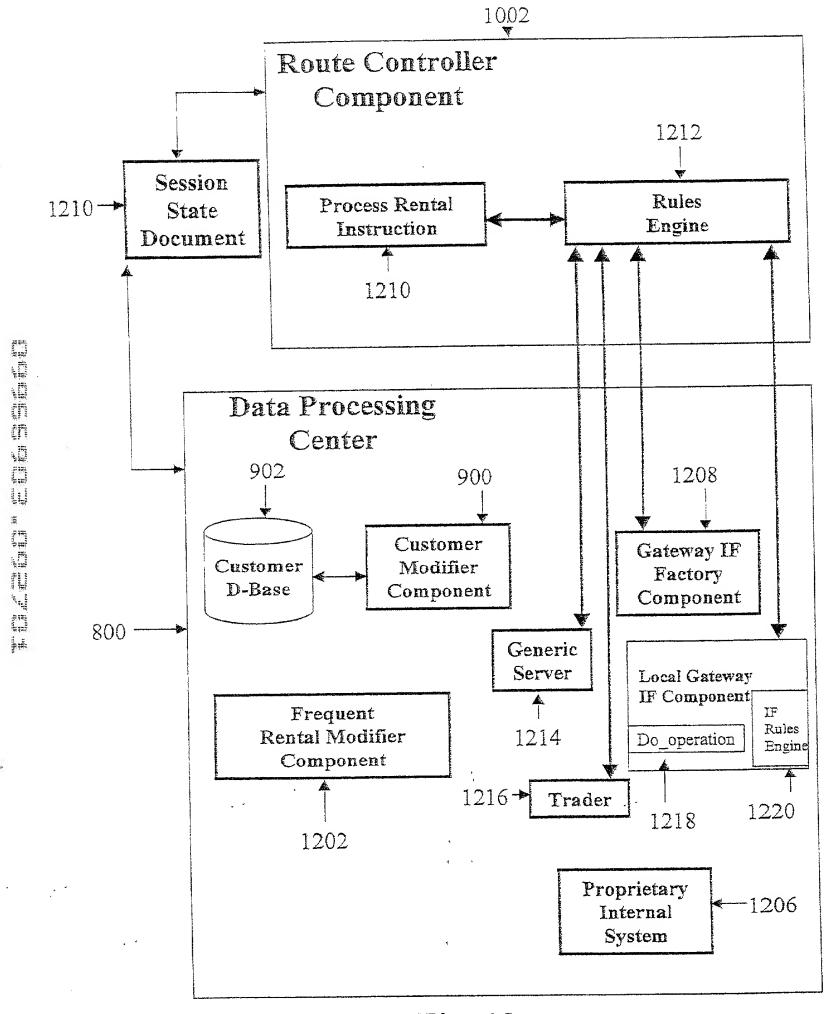


Fig. 12

Fig. 11A

```
RouteController's XML configuration file:
```

```
<Server Name = "RouteControllerSvr" >
   <Attributes>
      <Simple Name="ThreadPolicy">thread-pool</Simple>
     < Simple Name = "MaxThreads" > 20 < /Simple >
      < Simple Name = "IncludeFile" > ../TraderInclude.xml </Simple>
   </Attributes>
   < Internal Components >
      < Component Name = "RouteController >
         < Creator Name = "SnSControllerCreator"
     Library = "libSnSFrameworkControllerCreators.so"/>
         < Relationships >
            <Uses Name = "RentalSetupModifier" Component = "CustomerModifier"</pre>
              Type = "Modifier" PersistConnection = "False"/>
            < Uses Name = "PromotionalModifier" Component = "FrequentRentalModifier"</p>
              Type = "Modifier" PersistConnection = "False"/>
            < Uses Name = "GatewayIFFactory" Component = "GatewayIFFactory"</p>
              Type = "Modifier" PersistConnection = "False"/>
                      </Relationships>
                      < RuleSet Name = "Standard" Default = "True" >
                             < Process Label = "ProcessRental"
ReleaseResources = "True" OnFail = "Stop" >
                                     < Acquire ResourceType = "GatewayIF"
ResourceKey = "GatewayIF"
                 Instruction = "GatewayIFFactory" OnFail = "Stop"/>
                                    < Component ComponentType = "Controller"
Name = "GatewayIF"
                 FailIfNone = "True" OnFail = "Stop" Instruction = "StoreRental" >
                 < Resource ResourceKey = "InDocument" FailIfNone = "True"/>
                  <Resource ResourceKey = "OutDocument" FailIfNone = "True"/>
               </Component>
               < Component ComponentType = "Modifier" Name = "RentalSetupModifier"</p>
                 FailifNone = "True" OnFail = "Continue"
                 SpecialInstructions = "Label = " GetStatus"" >
                  <Resource ResourceKey="InDocument" FailIfNone="True"/>
               </Component>
               <Process Query = "Customer[@Status! = 'Normal'" OnFail = "DoNothing" >
                  Component ComponentType="Modifier"
              Name = "Promotional Modifier"
                    FailIfNone = "True" OnFail = "Stop"
                    SpecialInstructions = "Label = " ValuedPromo"" >
                     <Resource ResourceKey = "InDocument" FaillfNone = "True"/>
                  </Component>
               </Process>
               <Process Query = "Customer[@Status = 'Normal'" OnFail = "DoNothing" >
                  Component ComponentType="Modifier"
               Name = "Promotional Modifier"
                     FailIfNone="True" OnFail="Stop"
                     SpecialInstructions = "Label = " Regular Promo "" >
```

Fig. 11B

```
<Resource ResourceKey="InDocument" FailIfNone="True"/>
                </Component>
             </Process>
             <Process Query="Video[@Name='First Movie'" OnFail="DoNothing">
                < Variable Name = "InsertQuery" ValueType = "Literal" >
                  Promo[Code=U15]
                </Variable>
                < Instruction Name = "Insert" On Fail = "Stop" >
                   < Resource ResourceKey = "OutDocument" FailIfNone = "True"/>
                Instruction>
                < Variable Name="InsertQuery" ValueType="Literal">
                   Remark[Type=Important][Value = "Give customer free First Movie
                poster"]
                </Variable>
                < Instruction Name = "Insert" OnFail = "Stop" >
                   < Resource ResourceKey = "OutDocument" FailIfNone = "True"/>
                </instruction>
              </Process>
             <Process Query="Promo" OnFail="DoNothing">
                < Component ComponentType = "Controller" Name = "GatewayIF"</p>
                   FailIfNone = "True" OnFail = "Stop"
                Instruction="StorePromoEntry">
                   <Resource ResourceKey="InDocument" FailIfNone="True"/>
                   <Resource ResourceKey = "OutDocument" FailIfNone = "True"/>
                </Component>
                                   </Process>
                            </Process>
                            < Process Label = "DoNothing"/>
                    </RuleSet>
             </Component>
      /InternalComponents>
  < External Components >
     < Component Name = "CustomerModifier" >
        <Locator Type = "Trader" ID = "CustomerModifier"/>
     </Component>
     < Component Name = "GarewayIFFactory" >
        <Locator Type="Trader" ID="GatewayIFFactory"/>
     </Component>
  </ExternalComponents>
</Server>
```

Fig. 13

FrequentRentalModifier's XML configuration file:

```
<Server Name = "FrequentRentalModifierSvr" >
   < Attributes >
      < Simple Name = "ThreadPolicy" > thread-pool < /Simple >
      < Simple Name = "MaxThreads" > 20 < /Simple >
      <Simple Name = "IncludeFile" > ../TraderInclude.xml 
   </Attributes>
   < InternalComponents >
      < Component Name = "FrequentRentalModifier >
         < Creator Name="FrequentRentalModifer"</pre>
     Library = "libFrequentRentalModifierCreators.so"/>
         < Attributes >
            <Simple Name="ServiceType">FrequentRentalModifier</Simple>
            <Simple Name="Library" Type="EnvVar">SB_DB_LIBRARY</Simple>
            <Simple Name="Database" Type="EnvVar">SB_DB_INSTANCE</Simple>
            <Simple Name="UserName" Type="EnvVar">SB DB USER NAME</Simple>
            <Simple Name="Password" Type="EnvVar">SB_DB_PASSWORD</Simple>
            <Simple Name="Table">SB RESERVATIONS</Simple>
            < Simple Name = "IDColumn" > ID </ Simple >
            <Simple Name="RentalDateColumn">RENTAL_DATE</simple>
         </Attributes>
         < Relationships/>
                       < RuleSet Name = "Standard" Default = "True" >
                               < Process Label = "RegularPromo" >
                                      < Variable Name = "DaysInPeriod"</pre>
ValueType = "Literal" > 30 < /Variable >
                                      < Variable Name = "RentalsRequired"</pre>
ValueType = "Literal" > 10 < /Variable >
               <Variable Name="PromoCode" ValueType="Literal">U11</Variable>
               < Instruction Name = "CheckQualification" OnFail = "Stop" >
                   <Resource ResourceKey = "InDocument" FailIfNone = "True"/>
                   <Resource ResourceKey="OutDocument" FailIfNone="True"/>
               Instruction>
                       </Process>
                               < Process Label = "ValuedPromo" >
                                      <Variable Name="DaysInPeriod"</pre>
ValueType="Literal">30</Variable>
                                      < Variable Name = "RentalsRequired"</pre>
ValueType="Literal">5</Variable>
               < Variable Name = "PromoCode" ValueType = "Literal" > U12 < /Variable >
               <Instruction Name = "CheckQualification" OnFail = "Stop" >
                   <Resource ResourceKey="InDocument" FaillfNone="True"/>
                   <Resource ResourceKey="OutDocument" FaillfNone="True"/>
               Instruction>
                       </Process>
                       </RuleSet>
               </Component>
        /InternalComponents>
   < ExternalComponents/>
</Server>
```

Fig. 14

```
GatewayIF's XML configuration file:
```

```
<Server Name = "GatewayIFSvr" >
  < Attributes >
     < Simple Name = "ThreadPolicy" > thread-pool 
     < Simple Name = "MaxThreads" > 20 < /Simple >
     <Simple Name = "IncludeFile" > ../TraderInclude.xml 
   </Attributes>
   < Internal Components >
      < Component Name = "GatewayIFFactory >
         < Creator Name=""SnSFactoryCreator"</pre>
     Library = "libSnSFrameworkFactoryCreators.so"/>
         < ChildCreator Name = "GatewayIFCreator"</p>
     Library = "libGatewayIFCreators.so"/>
         < Relationships/>
         < Attributes >
              <Simple Name = "ServiceType" > GatewayIFFactory < /Simple >
            < Simple Name = "Policy" > PoolAsNeeded < /Simple >
              <Simple Name = "ProductsAreGateways" > True </Simple >
              < Simple Name = "PoolSize" > 20 < /Simple >
              < Simple Name = "AvailableBuffer" > 6 < /Simple >
              < Simple Name = "AvailableLimit" > 10 < /Simple >
              < Simple Name = "MaintenanceThreads" > 1 < /Simple >
              < Simple Name = "MaintenanceThreadWakeUp" > 30 < /Simple >
              <Simple Name = "MakeIsValidCheckEachGet" > False < /Simple >
              <Simple Name = "MakeIsValidCheckPeriodically" > False 
              <Simple Name="PeriodicIsValidPause">60</Simple>
              <Simple Name = "CreatorName" > GatewayIFCreator < /Simple >
         </Attributes>
         < Children Name = "GatewayIF" >
                             < RuleSet Name = "Standard" Default = "True" >
                                    <Process Label="StoreRental">
                 < Instruction Name = "StoreRental" OnFail = "Stop" >
                    < Resource ResourceKey = "InDocument" FailIfNone = "True"/>
                    < Resource ResourceKey = "OutDocument" FailifNone = "True"/>
                 /Instruction>
                             </Process>
                                    <Process Label="StorePromoEntry">
                  < Instruction Name = "StorePromoEntry" OnFail = "Stop" >
                    <Resource ResourceKey = "InDocument" FailIfNone = "True"/>
                    < Resource ResourceKey = "OutDocument" FailIfNone = "True"/>
                 </Instruction>
                             </Process>
                             </RuleSet>
                      </Children>
               </Component>
       InternalComponents>
   < ExternalComponents/>
</Server>
```

Fig. 15

CustomerModifier's XML configuration file:

```
<Server Name="CustomerModifierSvr">
  < Attributes >
     <Simple Name = "ThreadPolicy" > thread-pool < /Simple >
      <Simple Name = "MaxThreads" > 20 < /Simple >
     <Simple Name="IncludeFile">../TraderInclude.xml</Simple>
  </Attributes>
  < InternalComponents >
      < Component Name = "Customer Modifier >
         < Creator Name="CustomerModifer" Library="libCustomerModifierCreators.so"/>
         < Attributes >
            <Simple Name="ServiceType">erCustomerModifier</Simple>
            <Simple Name="Library" Type="EnvVar">SB_DB_LIBRARY</Simple>
            <Simple Name = "Database" Type = "EnvVar" > SB_DB_INSTANCE < /Simple >
            <Simple Name = "UserName" Type = "EnvVar" > SB_DB_USER_NAME < /Simple >
            <Simple Name = "Password" Type = "EnvVar" > SB_DB_PASSWORD < /Simple >
            <Simple Name="Table">SB CUSTOMER </Simple>
            < Simple Name = "IDColumn" > ADDRESS < /Simple >
            < Simple Name = "AddressColumn" > ADDRESS < /Simple >
            < Simple Name = "StatusColumn" > STATUS < /Simple >
            < Simple Name = "PhoneColumn" > PHONE < /Simple >
         </Attributes>
         < Relationships/>
                       < RuleSet Name = "Standard" Default = "True" >
                               < Process Label = "GetAddress" >
               <Instruction Name = "GetAddress" OnFail = "Stop" >
                  < Resource ResourceKey = "InDocument" FailIfNone = "True"/>
                  < Resource ResourceKey = "OutDocument" FaillfNone = "True"/>
               Instruction>
                       </Process>
                               < Process Label = "GetStatus" >
               < Instruction Name = "GetStatus" OnFaii = "Stop" >
                  < Resource ResourceKey = "InDocument" FailIfNone = "True"/>
                   < Resource ResourceKey = "OutDocument" FaillfNone = "True"/>
               Instruction>
                    . </Process>
                               <Process Label = "GetPhoneNumber">
               < Instruction Name = "GetPhoneNumber" OnFail = "Stop" >
                  < Resource ResourceKey = "InDocument" FaillfNone = "True"/>
                  <Resource ResourceKey="OutDocument" FaillfNone="True"/>
               Instruction>
                       </Process>
                               < Process Label = "GetAil" >
               < Instruction Name = "GetAll" OnFail = "Stop" >
                  < Resource ResourceKey = "InDocument" FaillfNone = "True"/>
                   <Resource ResourceKey="OutDocument" FaillfNone="True"/>
               /Instruction>
                       </Process>
                       </RuleSet>
                </Component>
        /InternalComponents>
   < External Components/>
</Server>
```